Fact Sheet:

Regulatory Analysis and Management System (RAMS)

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(LL 4)

The Problem

Corps of Engineers (COE) Districts regulate activities conducted on and near wetlands and navigable waterways through the issuance, amendment, and denial of permits based on an assessment of activities' environmental impacts. This regulation requires the evaluation and tracking of thousands of permit applications annually and an assessment of both the individual and cumulative effects of projects in multiple-permitted areas. It also requires that agencies coordinate their environmental review of these activities. Effective regulation relies on the development of techniques and models for the analysis and management of environmental data and on accurate assessment by Corps District personnel of multiple data sources which frequently depict data at different scales, different resolutions, and in different formats. Such techniques and models are needed to adequately and rapidly assess activities subject to Corps regulatory jurisdiction.

The Technology

The Regulatory Analysis and Management System (RAMS) is a data base management system (DBMS) containing data relevant to the Corps permit assessment process. Originally developed by Applied Systems Consultants, Inc. (ASCI) for the Baltimore COE District, RAMS is used by Districts and their field

offices to track and manage permit applications and provide regulatory information needed by Corps Divisions and the Office of the Chief of Engineers (OCE). RAMS is a sequential query language (SQL)-based DBMS, written in Informix SQL, ESQL-C and the "C" programming language and is capable of running on a wide variety of UNIX platforms.

Benefits/Savings

RAMS facilitates the tracking of Corps-regulated activities and the generation of statistical data on impacted areas. The system speeds processing of permit applications by automating required steps, provides a data base of records that can be used to generate needed reports, and provides access to data sets used to evaluate the environmental impacts of proposed regulatory actions.

Status

RAMS is now used by 25 Corps Districts and field offices; the State of Maryland also uses RAMS to perform joint processing activities with Baltimore District. RAMS version 4.0 was released in July 1992 through ASCI, which also makes RAMS system training, user assistance, documentation, weekly status reports, and periodic software updates available to system users. Corps regulatory and information management personnel at the District, Division, and OCE levels have formed a RAMS Users' Group, a Steering Committee, and various working groups to guide and foster the design, development, implementation and use of RAMS by Corps regulators. They have also established a bulletin board for discussion of regulatory information. A separate, longer term redesign effort, modifying the RAMS data base structure and District-specific user interfaces, is also being undertaken at the U.S. Army Construction Engineering Research Laboratories (CERL). This effort will streamline and standardize the data base, reduce system training requirements, modularize the system structure to accommodate future changes, enable District data on environmental impacts to be elicited, make the system more independent of any specific SQL software, and facilitate RAMS-geographic information system (GIS) integration.

Prototype software has been developed to link RAMS with the Geographic Resources Analysis Support System (GRASS), a public domain GIS and image processing system currently installed at some 20 Corps Districts, Divisions, and laboratories. The RAMS-GRASS interface (RGI) prototype is now undergoing beta testing at several Corps Districts and is planned for general distribution by CERL subsequent to testing and incorporation of needed changes. This link will facilitate the analysis of environmental impacts associated with Corps-regulated activities, mitigation techniques, and policies. GRASS is also written in "C" and runs on essentially the same UNIX platforms as RAMS. This link will facilitate the analysis of environmental impacts associated with Corps-regulated activities, mitigation techniques, and policies.

Points of Contact

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